



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,324	03/18/2004	Michael R. Morgenthaler	1814-20500	5577
23505	7590	03/12/2007		
CONLEY ROSE, P.C. P. O. BOX 3267 HOUSTON, TX 77253-3267			EXAMINER SORKIN, DAVID L	
			ART UNIT	PAPER NUMBER
			1723	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/803,324	Applicant(s) MORGENTHALER ET AL.	
	Examiner David L. Sorkin	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-27 is/are pending in the application.
 4a) Of the above claim(s) 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7 and 9-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Jarvinen et al. (US 4,540,290). Regarding claim 1, Jarvinen ('290) discloses an apparatus comprising a tank containing a fluid (see col. 1, line 7, "tank containing liquid"); a vessel (15) within said tank, said vessel including a compartment that is free of liquid; a motor (12, optionally in combination with 13) housed in said fluid free compartment; and a shaft (17) connected to said motor and extending from said fluid-free compartment and into said fluid. Said tank has an exterior that is in contact with air at an ambient air pressure, and said compartment is pressurized to a pressure exceeding the ambient air pressure (see col. 3, lines 21-23). Regarding claim 3, a source of compressed gas is located outside said tank and a conduit (9) extends between said compressed gas source and said compartment adapted to communicate gas between said source of compressed gas and said compartment (see col. 2, lines 24-27).
3. Claims 1, 3-5 and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Pflieger (US 2,186,494). Regarding claim 1, Pflieger ('494) discloses a tank (1) containing a fluid; a vessel (4) within said tank, said vessel including a

Art Unit: 1723

compartment (an upper part of 4) that is free of liquid; a motor (7,9) housed in said fluid free compartment; and a shaft (5 or 39 or 44 or 52) connected to said motor and extending from said compartment said into said fluid. Said tank has an exterior that is in contact with air at an ambient air pressure, and wherein said compartment is pressurized to a pressure exceeding ambient air pressure (see the second column of page 4, lines 73-74). Regarding claim 3, a source (15,16) of compressed gas is located outside said tank and a conduit (14 or 60) extending between said compressed gas source and said fluid-free compartment is adapted to communicate gas between said source of compressed gas and said compartment. Regarding claim 4, a level sensor (18,19 or 36 or 54 or 55 or 46 or 47) in said vessel is adapted to sense fluid level and to send an electrical signal to a controller (12,17,24) when fluid in said vessel rises to a predetermined level; said controller electrically coupled to said source of compressed gas and adapted to cause said source of compressed gas to communicate gas via said conduit to said fluid free compartment upon receipt of said signal from said level detector. Regarding claim 5, a pressure-relief valve (23) is electrically coupled to said controller and adapted to open to cause gas to escape said compartment upon receipt of a control signal from said controller. Regarding claim 20, Pfleger ('494) discloses a vessel (4) having an opening (57 or 29 or 48) at a first end thereof; a control apparatus to keep fluid in said vessel below a pre-determined level, said control apparatus comprising a controller (12,17,24); a compressor (15,16) adapted to supply pressurized gas to a pressurized region in the vessel upon receipt of a control signal from said controller; a first level detector (18,19 or 36 or 54 or 55 or 46 or 47) in said vessel to

send a signal to said controller when said fluid level in said vessel rises to said first predetermined level; and said compressor and said first level detector being electrically coupled to said controller (see Fig. 1). Regarding claim 21, two level detectors (for example 54 and 55 or 46 and 47) for different levels are in the vessel. Regarding claim 22, the means (15) to stop the compressor from supplying are disclosed. Regarding claim 23, a pressure relief valve (23) is electrically coupled to said controller and adapted to release gas from said pressurized region upon receipt of a signal from the controller.

4. Claims 1, 3 and 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Potter (US 2,034,419). Regarding claim 1, Potter ('419) discloses an apparatus comprising a tank (the lined or unlined bore as seen in Fig. 1 and other figures) containing a fluid; a vessel (3 and/or 16) within the tank, said vessel including a compartment that is free of liquid; a motor (2) housed in said fluid-free compartment (see the second column of page 3, lines 69-72); and a shaft (see the second column of page 2, lines 1-5) connected to the motor. Said tank has an exterior that is in contact with air at an ambient pressure, and said fluid-free compartment is pressurized to a pressure exceeding ambient pressure (see the second column of page 2, lines 30-35). Regarding claim 3, a source (12,13) of compressed gas is located outside said tank and a conduit (14 or 31) extends between said compressed gas source and said compartment and is adapted to communicate gas between said source of compressed gas and said compartment. Regarding claim 6, Potter (US 2,034,419) discloses an enclosure (the lined or unlined bore as seen in Fig. 1 and other figures) including a top

(see Fig. 1); a vessel (16) attached to said enclosure top and extending from said top; a compartment (for example 3) in said vessel; a motor (2) disposed in said compartment; and a shaft (see the second column of page 2, lines 1-5) connected to the motor.

Regarding claim 7, a conduit (31) extends between said fluid free compartment and a location outside said enclosure, and means (12,13) supply gas through said conduit into the compartment. Regarding claim 8, said enclosure has an exterior that is in contact with air at an ambient pressure, and said compartment is pressurized to a pressure exceeding ambient air pressure (see the second column of page 2, lines 30-35).

Regarding claim 9, said means for supplying gas includes a gas compressor (12) located on top said enclosure. Regarding claim 10, an impeller (part of 1) is in said enclosure and mounted on said shaft outside of said vessel.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfleger (US 2,186,494). The apparatus of Pfleger ('494) was discussed above. Pfleger ('494) further discloses a motor (7,9) disposed in said pressurized region connected to a rotatable shaft (5 or 39 or 44 or 52) which is connected to a pump (see the second column of page 1, lines 37-42). Although the structure of the pump is not disclosed, the fact that the pump is operated by a rotating shaft would have suggested

Art Unit: 1723

that the pump have a plurality of blades connected to the shaft to one of ordinary skill in the art, to impel the liquid being pumped. Regarding claim 25, the controller is electrically coupled to the motor (see the first column of page 2, lines 34-36).

7. Claims 4, 5 and 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potter (US 2,034,419) in view of Pfleger (US 2,186,494). The apparatus of Potter ('419) was discussed above. While Potter ('419) does not explicitly state that a level detector is in said vessel, Potter ('419) does explain in the second column of page 4, lines 72-74, that the compressor may be controlled by a level detector. The details of such a system, such as the exact location of the level detector, are not disclosed. Pfleger ('494), also discussed above, teaches providing a level detector (18,19 or 36 or 54 or 55 or 37 or 46 or 47) in a vessel having a fluid free compartment, to control a pressurized gas source (15,16) via controller (17). It would have been obvious to one of ordinary skill in the art to have provided the level control mechanism and circuitry of Pfleger ('494) in the apparatus of Potter ('419) because Potter ('419) suggests having level control of the compressor in the second column of page 4, lines 72-74, but does not disclose details of such a control system. Pfleger ('494) further teaches pressure relief valve (23).

Allowable Subject Matter

8. Claims 19 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. The claims as currently amended are not rejected under section 112.

10. Wade (US 2,858,782) and Hausman (US 2,042,176) are not relied upon in rejecting the claims as currently amended.

11. Regarding Jarvinen et al. (US 4,540,290), applicant argues that there is no disclosure of a shaft connected to a motor. However, this argument is unconvincing for two distinct reasons. Firstly, in Jarvinen ('290), the combination of 12 and 13 can properly be considered a "motor". Secondly, the word "connected" does not require the absence of a connector. A connector (such as 13) can be used to connect two items (such as 12 and 17), in which case the two items are still said to be "connected". This is similar to saying a door is connected to a wall, when there is a hinge therebetween making the connection.

12. Regarding Pfleger ('494), applicant states that "the motor casing is not continuously pressurized". However, the instant claims are not method claims and the issue of whether steps disclosed by Pfleger ('494) are or are not continuous is not germane.

13. Regarding the intended presence or absence of liquid or other material in the claimed device "inclusion of material or article worked upon by a structure being claimed, does not impart patentability to the claims" *In re Otto* 136 USPQ 458, 459 (CCPA 1963). "Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969).

14. Regarding the intended level of liquid, "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). This decision specifically involves the recitation of material level in a mixing apparatus.

15. Similarly, regarding Potter ('419) the intended use of the exterior of the tank is not germane to the patentability of the apparatus: "the manner or method in which such machine is to be utilized is not germane to the issue of patentability of the machine itself" *In re Casey*, 152 USPQ 235 (CCPA 1967).

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 1723

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 571-272-1148. The examiner can normally be reached on 9:00 -5:30 Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


David L. Sorkin
Primary Examiner
Art Unit 1723

DLS